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In re Patent Application of

Ray D. Odom

09/982,256

Serial No. Filed

October 18, 2001

REMARKS

Applicant appreciates the Examiner's implicit determination that there exist no references which anticipate the present invention. Accordingly, the Office Action is limited to concerns under 35 U.S.C. 103(a).

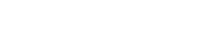
The Office Action rejects all independent claims as obvious under 35 U.S.C. 103(a) and unpatentable over the reference to Rusnak (US 4,254,956), in view of Elings et al. (US 3,647,284). For the following reasons, Applicant respectfully disagrees and asserts the claims are patentable.

The Independent Claims Are Patentable Over The Cited References

Independent Claims 1, 10, 19, 28, 39 and 40 have been rejected as obvious over the Rusnak reference, in view of Elings, and unpatentable under Section 103(a). Applicant respectfully disagrees.

Rusnak describes a golf swing training apparatus which comprises a plurality of sensors to obtain information on club head position as the club head swings through either a holographic image of a golf ball, or through a captive or dummy ball. See Rusnak, column 4, lines 39-46.

Rusnak's only description of the formation of a ball image is found at column 4, lines 40-42, to wit: "a *holographic* image through the use of conventional lights, lenses and mirrors." Emphasis is added. The common definition as known in the art for the term "holographic image" or "hologram" is the pattern produced on a photosensitive medium that has been exposed by holography and then photographically developed. Further, "holography" is defined as the technique of producing images by wave front reconstruction, especially by using lasers to record on a photographic plate the diffraction pattern from



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which a three-dimensional image can be projected. Source: Riverside Webster's II New College Dictionary, HoughtonMifflin Company, Boston, New York, 1995.

In addition, Applicant encloses herewith, as Exhibit 1, printouts accessible through the Merriam-Webster Dictionary available through the internet at www.m-w.com. This online dictionary also defines "holographic" as an adjective relating to the art of making or using a hologram, and defines "hologram", noun, as "a three-dimensional image reproduced from a pattern of interference produced by a split coherent beam of radiation (as a laser); also: the pattern of interference itself."

Applicant also encloses Exhibit 2, printed from Holographic Studios, a source of information shown in a link on-line Merriam-Webster Dictionary. Jason Sapan, of Holographic Studios, explains that "a hologram is a photograph of light wave interference." See Exhibit 2, page 7, Frequently Asked Questions, third bullet point.

Instead of a hologram, the present invention relies on formation of a real image of a golf ball by reflecting light on a concave mirror. The written description as filed, on page 4, line 22, provides the example illustrated in FIG. 4 of a real image of the golf ball produced by such a mirror. Enclosed as Exhibit 3 is an article on Mirror Optics, photocopied from the McGraw-Hill Encyclopedia of Science & Technology, 7th Edition, 1992. Applicant calls the Examiner's attention to Fig. 4 in this article, which illustrates in frame (a) the formation of a real image by a spherical mirror. The present invention, thus, operates according to the principles of mirror optics, not holography or holograms.

It is clear, then, that the present invention relies on a totally different principle than that taught by Rusnak, the formation of an optical image of the golf ball, rather than generation of a hologram or holographic image of the ball. It is also clear that by teaching a holographic image, Rusnak teaches away from the present invention and leads the



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skilled toward a more complicated and expensive technology than the simple mirror optics employed by Applicant.

Contrary to the Examiner's assertion, Rusnak does not describe any other means for creating an image of the golf ball. Rusnak describes at column 1, line 16, that the invention "utilizes a captive or simulated ball." A captive ball is not a simulated image, it is an actual ball which is tethered to the apparatus. As noted above, at column 4, lines 40-42, Rusnak describes forming "a holographic image through the use of conventional lights, lenses and mirrors." Rusnak describes no other means for forming such an image, and provides no suggestion for doing what Applicant has done.

The reference by Elings et al. describes an optical display device, "well suited for the display of valuable objects such as jewelry because the object itself can be placed under glass, out of reach of an acquisitive viewer." See Elings et al. at column 1, lines 22-24. Elings et al., therefore, describe and teach a display device suited for store displays, for example for jewelry. Elings et al. make no suggestion whatsoever that the principles embodied in their device might be useful in sports, and certainly not in the sport of golf.

There Must Be A Basis In The Art For Combining References

Applicant respectfully points out that neither Rusnak, nor Elings et al. express a teaching, suggestion, or incentive that would lead a person skilled in the art to combine the references. The Federal Circuit has long established that

[o]bviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the combination.

ACS Hospital Systems, Inc. v. Montefiore Hospital, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1987).



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It is established that a court will first look to the prior art references to determine whether "the references by themselves . . . suggest doing what [Applicants] have done." In re Clinton 527 F.2d 1226, 1228, 188 USPQ 365, 367 (CCPA 1976). Respectfully, the Examiner has not established such showing.

Even if all the elements of a claim were to have been disclosed in the various cited references, which Applicant disputes in this case, the claimed invention as a whole cannot be said to be obvious without some reason given in the references why a skilled worker would combine the teachings of the references to arrive at the claimed invention. In re Regel, 188 USPQ 132 (CCPA 1975). The Examiner does not point out any such reason given in the prior art, and in the absence of such reason or suggestion, the Office Action fails to establish a *prima facie* case of obviousness.

Nevertheless, Applicant has amended the language of the independent claims to clarify that the image is an optical image, and not a hologram.

Conclusion

In view of the remarks set forth above, Applicant submit that all pending independent claims are patentable. In addition, their respective dependent claims, which recite yet further distinguishing features, are also patentable and require no further discussion.

If the further prosecution can be facilitated through a telephone conference between the Examiner and the undersigned, the Examiner is respectfully requested to telephone the undersigned at his convenience. In re Patent Application of

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Respectfully submitted,

Enrique G. Estévez

Reg. No. 37,823

Allen, Dyer, Doppelt, Milbrath & Gilchrist, P.A.

255 S. Orange Ave., Suite 1401

P. O. Box 3791

Orlando, Florida 32802

(407) 841-2330

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I hereby certify that this correspondence, addressed to Commissioner of Patents and Trademarks, Washington, D.C. 20231 is being filed with the United States Patent and Trademark Office by facsimile telecopier transmittal to Group Art Unit 3711, at (703) 872-9302, on January 30, 2003.

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VERSION WITH MARKINGS TO SHOW AMENDMENTS MADE

1.(Amended) A golf swing practice apparatus comprising:

a playing surface for a golfer to thereon practice a swing; and

a reflector positioned adjacent said playing surface, said reflector comprising a curved reflecting surface adapted for focusing a reflection of a golf ball so as to produce an <u>optical</u> image of the golf ball appearing adjacent said playing surface, simulating a golf ball for a golfer to swing a golf club therethrough.

10.(Amended) A golf swing practice apparatus comprising:

a playing surface for a golfer to thereon practice a swing;

a support for supporting said playing surface; and

a reflector positioned adjacent said playing surface, said reflector comprising a curved reflecting surface adapted for focusing a reflection of a golf ball so as to produce an <u>optical</u> image of the golf ball appearing adjacent said playing surface for a golfer to swing a golf club therethrough.

19.(Amended) A golf swing practice apparatus comprising:

a playing surface for a golfer to thereon practice a swing, said playing surface having an opening therethrough;

a support for supporting said playing surface; and

a reflector positioned in said support underlying said playing surface, said reflector comprising a curved reflecting surface adapted for focusing a reflection of a golf ball through the opening in said playing surface so as to produce an <u>optical</u>

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swing a golf club therethrough.

image of the golf ball appearing adjacent said playing surface approximately above the opening for a golfer to swing a golf club therethrough.

28.(Amended) A golf swing practice apparatus comprising:

a playing surface for a golfer to thereon practice a swing, said playing surface having an opening therethrough;

a housing having an upper portion comprising said playing surface; and a reflector positioned in said housing underlying said playing surface, said reflector comprising a curved reflecting surface adapted for focusing a reflection of a golf ball through the opening in said playing surface so as to produce an optical image of the golf ball appearing approximately above the opening for a golfer to

39.(Amended) In combination with a golf practice range having a plurality of golf swing practice stations, a golf swing practice apparatus comprising:

a playing surface for a golfer to thereon practice a swing; and

a reflector positioned adjacent said playing surface, said reflector comprising a curved reflecting surface adapted for focusing a reflection of a golf ball so as to produce an <u>optical</u> image of the golf ball appearing adjacent said playing surface for a golfer to swing a golf club therethrough;

wherein said golf swing practice apparatus comprises at least one of said plurality of golf swing practice stations.

40.(Amended) A method of practicing a golf swing, comprising:



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focusing a reflection of a golf ball from a curved reflecting surface to form an optical image of the golf ball appearing adjacent the curved reflecting surface; and swinging a golf club through the image of the golf ball to thereby practice the golf swing.